

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended): An information retrieval apparatus for searching a set of information items and displaying results of the search using a self-organizing map, the apparatus comprising:

a graphical user interface configured to display a representation of at least some of the information items as a n-dimensional array of display points within the self-organizing map within a display area, the information items each having a set of characterizing information features which include data representative of one or more video images,

a processor configured to train the self-organizing map, using color histograms for each video image, to an effect that ~~the~~ a color histogram representing ~~the~~ a video image of the information item when applied to an input of the self-organizing map as a feature vector identifies one of a plurality of output nodes, the output nodes being arranged to identify points within the self-organizing map,

a user control configured to, in response to a user input, select a plurality of video image images of an information item and to specify a combination of the plurality of selected video images, and

a search processor configured

to form a color histogram ~~of~~ for each of the user selected video image images,  
to generate a composite color histogram from the specified combination of each of the color histograms from each of the selected video images,

to generate a user defined feature vector from the user selected video ~~image images~~ using the composite color histogram histograms,

to search the set of information items by applying the user defined feature vector to the input of the self-organizing map to identify information items which include

video images having color histograms corresponding to that of the user ~~defined~~ selected video ~~image~~ images, and

to perform a related search with respect to the user selected video ~~image~~ images by identifying, from the self-organizing map, information items which correspond to positions in the array which are neighbouring positions with respect to ~~the~~ an array position corresponding to the user selected video image.

2. (Currently Amended): ~~An~~ The information retrieval apparatus as claimed in Claim 1, wherein the search processor is configured to search the set of information items in accordance with a search query and to identify information items corresponding to the search query, and ~~the search~~ a mapping processor is configured to generate ~~the self-organizing~~ map data of information items identified as a result of the search on the search query.

3. (Canceled).

4. (Currently Amended): ~~An~~ The information retrieval apparatus as claimed in Claim 1, wherein a number of dimensions  $n$  is two, and a position in the array is defined by  $x$ ,  $y$  coordinates.

5. (Currently Amended): ~~An~~ The information retrieval apparatus as claimed in Claim 4, wherein the search processor is configured to perform a related search with respect to the user selected video ~~image~~ images by identifying information items which correspond to positions in the array which are within a radius of positions from the array position corresponding to the user selected video ~~image~~ images.

6. (Currently Amended): ~~An~~ The information retrieval apparatus as claimed in Claim 1, wherein the user control is configured to provide the user with a facility for specifying a number of neighbouring positions in accordance with a relative similarity of the information items to be searched by the search processor in the related search, with respect to the array position ~~of interest~~ corresponding to the user selected video images.

7. (Currently Amended): A method for searching a set of information items and displaying results of the search using a self-organizing map, the method comprising:

displaying a representation of at least some of the information items on an n-dimensional display array of display points within the self-organizing map within a display area, the information items each having a set of characterizing information features which include data representative of one or more video images,

training the self-organizing map, using color histograms for each video image, to an effect that ~~the~~ a color histogram representing ~~the~~ a video image of the information item when applied to an input of the self-organizing map as a feature vector identifies one of a plurality of output nodes, the output nodes being arranged to identify points within the self-organizing map,

selecting a plurality of video image images of ~~an~~ information ~~item~~ items in response to a user input,

specifying a combination of the plurality of selected video images forming a color histogram for each of the user selected video ~~image~~ images,

generating a composite color histogram from the specified combination of each of the color histograms from each of the selected video images,

generating a user defined feature vector from the user selected video ~~image~~ images using the composite color histogram,

searching the set of information items by applying the user defined feature vector to the input of the self-organizing map to identify information items which include video images having color histograms corresponding to that of the user ~~defined~~ selected video image images, and

performing a related search with respect to the user selected video ~~image~~ images by identifying, from the self-organizing map, information items which correspond to positions in the array which are neighbouring positions with respect to ~~the~~ an array position corresponding to the user selected video image.

8. (Currently Amended): ~~[[A]]~~ The method as claimed in Claim 7, further comprising:

searching the information items in accordance with a search query,  
identifying information items corresponding to the search query, and the method  
further comprises

~~the generating comprises~~

generating the self-organizing map of information items identified as a result of the searching the information items in accordance with the search query.

9. (Canceled).

10. (Currently Amended): ~~[[A]]~~ The method as claimed in Claim 7, wherein the number of dimensions  $n$  is two, and a position in the array is defined by  $x, y$  co-ordinates.

11. (Currently Amended): ~~[[A]]~~ The method as claimed in Claim 10, wherein the performing the related search comprises performing a related search with respect to the user

selected video ~~image~~ images by identifying information items which correspond to positions in the array which are within a radius of positions from the array position corresponding to the user selected video ~~image~~ images.

12. (Currently Amended): ~~A~~ The method as claimed in Claim 11, wherein the selecting includes providing the user with a facility for specifying the radius of positions in accordance with a relative similarity of the information item to be searched by ~~the~~ a search processor in the related search, with respect to the array position ~~of interest~~ corresponding to the user selected video images.

13. (Currently Amended): A storage medium providing computer software having program code, which when executed on a computer causes the computer to carrying out a method ~~according to claim 7~~ for searching a set of information items and displaying results of the search using a self-organizing map, the method comprising:

displaying a representation of at least some of the information items on an n-dimensional display array of display points within the self-organizing map within a display area, the information items each having a set of characterizing information features which include data representative of one or more video images,

training the self-organizing map, using color histograms for each video image, to an effect that a color histogram representing a video image of the information item when applied to an input of the self-organizing map as a feature vector identifies one of a plurality of output nodes, the output nodes being arranged to identify points within the self-organizing map,

selecting a plurality of video images of information items in response to a user input,

specifying a combination of the plurality of selected video images forming a color histogram for each of the user selected video images,

generating a composite color histogram from the specified combination of each of the color histograms from each of the selected video images,

generating a user defined feature vector from the user selected video images using the composite color histogram,

searching the set of information items by applying the user defined feature vector to the input of the self-organizing map to identify information items which include video images having color histograms corresponding to that of the user selected video images, and

performing a related search with respect to the user selected video images by identifying, from the self-organizing map, information items which correspond to positions in the array which are neighboring positions with respect to the array position corresponding to the user selected video image.

14-16. (Canceled).

17. (New): The information retrieval apparatus of Claim 1, wherein the combination of the plurality of selected video images specified by the user control in response to a user input is a Boolean logical combination, the composite color histogram from the specified combination of each of the color histograms being generated from the specified logical combination of color histograms.

18. (New): The method as claimed in Claim 7, wherein the specifying the combination of the plurality of selected video images includes specifying a Boolean logical combination of the plurality of selected video images, and the generating the composite color

histogram includes combining the color histograms from each of the selected video images in accordance with the specified logical combinations.